

20080. SWRCB - General Requirements. (C15: §2510)

(a) **Scope**—The regulations in this subdivision that are promulgated by the State Water Resources Control Board (**SWRCB**) pertain to water quality aspects of discharges of solid waste to land for treatment, storage, or disposal. The SWRCB-promulgated regulations in this subdivision establish waste and site classifications and waste management requirements for solid waste treatment, storage, or disposal in landfills, surface impoundments, waste piles, and land treatment units. Requirements in the SWRCB-promulgated portions of this subdivision:

- (1) **Minimum standards**—are minimum standards for proper management of each waste category. Regional boards may impose more stringent requirements to accommodate regional and site specific conditions;
- (2) **MSW Landfill Requirements**—as they apply to MSW landfills, are superseded by any more stringent requirements in SWRCB Resolution No. 93-62 (Section 2908, Title 23 of this code) or in the federal MSW regulations (40CFR258);
- (3) **Utilize Abbreviated Internal References**—make reference only to requirements of the sections within this subdivision, unless otherwise stated. Under this internal reference convention: (A) any unenumerated paragraph reference in this division [*e.g.*, “&(c),” or “&(d)(2)(A-D)” (*i.e.*, *subsections A through D, inclusive*)] is to be found in the same section as the referring subsection; and (B) any enumerated reference that does not explicitly identify a source outside this subdivision [*e.g.*, “§20200”, “§20220(b),” or “Article 2, Subchapter 3, Chapter 3”] is to be found in this subdivision; and
- (4) **Contain Nonregulatory Notes and Examples**—contain some nonregulatory language that is needed in a body of multi-agency regulations such as this in order to improve clarity and continuity. Such non-regulatory language is always italicized, is always set off from adjacent regulatory text by parentheses or brackets, serves an obviously explanatory function, and typically begins with either “*Note:*” or “*e.g.*,”. In the SWRCB-promulgated sections of this subdivision, such italicized notes and examples are intended only to provide the reader with useful guidance, and do not constitute standards having regulatory effect.

(b) **Engineered Alternatives Allowed**—Unless otherwise specified, alternatives to construction or prescriptive standards contained in the SWRCB-promulgated regulations of this subdivision may be considered. Alternatives shall only be approved where the discharger demonstrates that:

- (1) the construction or prescriptive standard is not feasible as provided in &(c); and
- (2) there is a specific engineered alternative that:
 - (A) is consistent with the performance goal addressed by the particular construction or prescriptive standard; and
 - (B) affords equivalent protection against water quality impairment.

(c) **Demonstration [for &(b)]**—To establish that compliance with prescriptive standards in this subdivision is not feasible for the purposes of &(b), the discharger shall demonstrate that compliance with a prescriptive standard either:

- (1) is unreasonably and unnecessarily burdensome and will cost substantially more than alternatives which meet the criteria in &(b); or
 - (2) is impractical and will not promote attainment of applicable performance standards.
- The RWQCB shall consider all relevant technical and economic factors including, but not limited to, present and projected costs of compliance, potential costs for remedial action

in the event that waste or leachate is released to the environment, and the extent to which ground water resources could be affected.

(d) **Existing & New Units**—Units which were operating, or had received all permits necessary for construction and operation, on or before November 27, 1984, are designated as “existing” Units. This includes disposal sites classified under previous regulations and unclassified Units. Dischargers shall continue to operate existing Units under existing classifications and WDRs until those classifications and requirements are reviewed in accordance with §21720(c). Existing Units shall be closed and maintained after closure according to Subchapter 5, Chapter 3 of this subdivision (§20950 et seq.). All other Units (including expansions and reconstructions of existing Units initiated after November 27, 1984) are “new” Units. For discharges at new Units, the discharger shall comply with all applicable provisions of this division, as summarized in Table 3.1 [of Article 3, Subchapter 2, Chapter 3 of this subdivision] and in §20310(d). Pending review and reclassification, the following SWRCB-promulgated provisions of this division shall apply to existing Units:

- (1) except with regard to Units which were closed, abandoned, or inactive on or before November 27, 1984 [such Units are addressed separately, under &(g)], all dischargers are required to be in compliance with the monitoring program requirements [in Article 1, Subchapter 3, Chapter 3, Subdivision 1 of this division (§20380 et seq.)];
- (2) dischargers may be required to submit additional technical and monitoring reports to the RWQCB as determined to be necessary on a case by case basis.

(e) **Reclassification**—In reviewing WDRs for existing Units, the RWQCB shall consider the results of monitoring programs developed under &(d)(1) and technical and monitoring reports submitted under &(d)(2). Existing Units shall be reclassified according to the geologic siting criteria in Article 3, Subchapter 2, Chapter 3, Subdivision 1 of this division (§20240 et seq., as summarized in Table 3.1 of that article) and shall be required to comply with applicable SWRCB-promulgated construction standards in Article 4, Subchapter 2, Chapter 3, Subdivision 1 of this division [as summarized in §20310(d)] as feasible. To establish that retrofitting is not feasible, the discharger shall be required to make the demonstrations in &(b) and &(c).

(f) **WDRs Implement Regulations**—The RWQCB shall implement the SWRCB-promulgated regulations in this subtitle through the issuance of WDRs for Units.

(g) **CAI Units**—Persons responsible for discharges at Units which were closed, abandoned, or inactive on or before November 27, 1984 (**CAI Units**), may be required to develop and implement a detection monitoring program in accordance with Article 1, Subchapter 3, Chapter 3, Subdivision 1 of this division (§20380 et seq.). If water quality impairment is found, such persons may be required to develop and implement a corrective action program under that article.

(h) **Mining Waste**—Discharges of mining waste, as defined in §22470(a), shall be regulated only by the provisions of Article 1, Subchapter 1, Chapter 7, Subdivision 1 of this division (§22470 et seq.) and by such provisions of the other portions of this subdivision as are specifically referenced in that article.

(i) **Combined SWRCB/CIWMB Solid Waste Landfill Regulations**—The California Integrated Waste Management Board (**CIWMB**) and the SWRCB have promulgated the combined regulations contained in this division. For clarity, in moving the modified sections from their former location (in Chapter 15, Division 3, Title 23 of this code):

- (1) **Section Title Coding**—the title of each SWRCB-promulgated section in the combined regulations begins with “SWRCB - ” and ends with the section number (in parentheses) that section had in Title 23 — *e.g., the notation “(C-15: §2540)” following the section title signifies that the subject section is derived from §2540, Chapter 15, Division 3, Title 23 of this code, as that chapter existed prior to July 18, 1997*; and
- (2) **Paragraph Subtitles**—subtitles have been added at the beginning of many paragraphs, to assist the reader in quickly finding specific portions of the SWRCB’s requirements that address a particular issue.

NOTE: Authority cited: Section 1058, Water Code. Reference: Sections 13142, 13260 and 13263, Water Code.

20164. Combined CIWMB & SWRCB Technical Definitions. [CIWMB

T14:§17225.1-17225.74,§17258.2, 17761,18200.1, 18251,18011,18231,18281 // SWRCB C15: §2601]

[Note: This section contains the SWRCB’s and the CIWMB’s technical definitions, combined and listed in alphabetical order. Each agency is responsible for adopting its own definitions within this combined listing. Those terms in this section that are followed by “(CIWMB)” are adopted by the CIWMB; those followed by “(SWRCB)” are adopted by the SWRCB. Unless otherwise stated in a given regulation, it is the intent of the SWRCB and CIWMB that each agency’s definitions function for the other agency (e.g., when the CIWMB uses a term adopted by the SWRCB, or vice versa, the term has the same meaning as defined by the agency that adopted the term).]

“**Abandoned site**” (CIWMB) means a site where there is no responsible party.

“**Abandoned Vehicles**” (CIWMB) includes vehicles, with or without motor power, including cars, trucks, trailers, mobile homes, buses, etc., left on public or private property for an extended period of time and usually in an inoperable or hazardous condition.

“**Acceptance for filing**” (CIWMB) means the enforcement agency has determined that the application package is complete and correct and the specified permit action time frames contained in Chapter 4 of this subdivision commence.

“**Active**” (CIWMB) for CIWMB promulgated sections means the period when waste is being accepted for disposal at a disposal site.

“**Active Face**” (CIWMB) means the working surface of a landfill upon which solid wastes are deposited during the landfill operation, prior to the placement of cover material.

“**Active life**” or “**operating life**” (SWRCB) means the period during which wastes are being discharged to a waste management unit. The active life continues until final closure of the waste management unit has been initiated pursuant to this subdivision. For surface impoundments, the active life includes any time when the impoundment contains liquid, including waste and leachate.

“**Affected medium**” (SWRCB) means any natural medium that consists of or contains waters of the state (*e.g., ground water, surface water, or the unsaturated zone*) that has been affected by a release from a waste management unit.

“**Agricultural Solid Wastes**” (CIWMB) include wastes resulting from the production and processing of farm or agricultural products, including manures, prunings and crop residues wherever produced.

“Airport” (CIWMB) means public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

“Alternative Daily Cover” (CIWMB) see “cover material”.

“Annular Seal” (CIWMB) the seal placed in the space between the casing in a well and the wall of the hole, or between two concentric strings of casing, or between casing and tubing.

“Approval Agency” (CIWMB) includes any agency with regulatory powers regarding solid waste generation, collection, transportation, processing or disposal and includes, but is not limited to the CIWMB, the Department of Toxic Substances Control, California Regional Water Quality Control Boards, local air districts, local enforcement agencies, local health entities and local land use authorities.

“Approved closure plan” (SWRCB) means the portion of a waste management unit's (Unit's) final closure and post-closure maintenance plan that describes all actions necessary to prepare the Unit for post-closure maintenance, and that has been approved by the RWQCB and by any other state and local agencies having purview over that plan.

“Aquifer” (SWRCB) means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.

“Attitude” (SWRCB) means either the orientation in space of a geologic structural feature or the structural element position of a geologic bed, stratum, fracture, or surface relative to the horizontal.

“Background” (SWRCB) means the concentrations or measures of constituents or indicator parameters in water or soil that has not been affected by waste constituents or leachate from the waste management unit being monitored.

“Background Monitoring Point” (SWRCB) (as capitalized) means a well, device, or location specified in the waste discharge requirements at which monitoring for background water quality or background soil quality is conducted.

“Background plot” (SWRCB) means an area adjacent to a land treatment unit that can reasonably be expected to have the same, or similar soil conditions as were present at the land treatment unit prior to discharges of waste.

“Baling” (CIWMB) includes the process of compressing and binding solid wastes.

“Bench” (CIWMB) means a terrace or comparatively level platform breaking the continuity of a slope.

“Best management practice(s)” (SWRCB) means a practice, or combination of practices, that is the most effective and feasible means of controlling pollution generated by nonpoint sources for the attainment of water quality objectives.

“Bird hazard” (CIWMB) means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

“Bulky Waste” (CIWMB) includes large items of solid waste such as appliances, furniture, large auto parts, trees, branches, stumps and other oversize wastes whose large size precludes or complicates their handling by normal collection, processing or disposal methods.

“CAI Units” (SWRCB) means waste management units that were closed, abandoned, or inactive prior to November 27, 1984.

“Capillary force(s)” (SWRCB) means the adhesive force between liquids and solids which, in the case of ground water hydrology, causes soil pore liquid to move in response

to differences in matric potential. This effect causes ground water to rise from a saturated zone into the unsaturated zone, thereby creating a capillary fringe.

“Cell” (CIWMB) means that portion of compacted solid wastes in a landfill that is enclosed by natural soil or cover material during a designated period.

“Certified Engineering Geologist” (CIWMB) means a registered geologist, certified by the State of California, pursuant to section 7842 of the Business and Professions Code.

“CIWMB” (CIWMB) means the California Integrated Waste Management Board, which is the lead agency for implementing the State municipal solid waste permit program that is deemed to be adequate by US EPA under regulations published pursuant to sections 2002 and 4005 of RCRA.

“Classified waste management unit” or **“classified Unit”** (SWRCB) means a waste management unit (as defined in this section) that has been classified by a Regional Water Quality Control Board according to the provisions of Article 3 Subchapter 2, Chapter 3 of this division (§20240 et seq.).

“Classified Unit” — see “classified waste management unit” or “classified Unit”

“CLGB” — see “concentration limit”

“Closed Site” (CIWMB) means a disposal site that has ceased accepting waste and was closed in accordance with applicable statutes, regulations, and local ordinances in effect at the time.

“Closure” (SWRCB) means the process during which a waste management unit (Unit), or portion thereof, that is no longer receiving waste, is undergoing all operations necessary to prepare the Unit (or portion thereof, as appropriate) for post-closure maintenance in accordance with an approved plan for closure, or partial final closure as appropriate.

“COC” or **“COCs”** — see “Constituents Of Concern”

“Coefficient of variation” (SWRCB) means the standard deviation divided by the mean. It is a statistical measure of the dispersion of individual samples relative to the mean value of the samples.

“Collection” (CIWMB) means the act of collecting solid waste at the place of waste generation by an approved collection agent (public or private) and is distinguished from "removal."

“Collection Vehicle or Equipment” (CIWMB) includes any vehicle or equipment used in the collection of residential refuse or commercial solid wastes.

“Commercial Solid Wastes” (CIWMB) include all types of solid wastes generated by stores, offices and other commercial sources, excluding residences, and excluding industrial wastes.

“Concentration limit” (SWRCB) means the value for a constituent specified in the water quality protection standard under §20390 and §20400, including but not limited to values for concentration, temperature, pH, conductivity, and resistivity. The term can apply to a concentration that exceeds the constituent’s background concentration [i.e., a “concentration limit greater than background (CLGB)” (SWRCB) as described under §20400].

“Concentration limit greater than background (CLGB)” — see “concentration limit”

“Confined animal facility” (SWRCB) means any place where cattle, calves, sheep, swine, horses, mules, goats, fowl, or other domestic animals are corralled, penned, tethered, or otherwise enclosed or held and where feeding is by means other than grazing.

“Constituent” (SWRCB) means an element or compound which occurs in or is likely to be derived from waste discharged to the waste management unit.

“Constituent(s) of concern” or **“COC(s)”** (SWRCB) means any waste constituent(s), reaction product(s), and hazardous constituent(s) that is reasonably expected to be in or derived from waste contained in a waste management unit.

“Construction and Demolition Wastes” (CIWMB) include the waste building materials, packaging and rubble resulting from construction, remodeling, repair and demolition operations on pavements, houses, commercial buildings and other structures.

“Construction quality assurance” or **“CQA”** (SWRCB) means a planned system of activities that provides assurance that the facility, or component thereof, is constructed as specified in the approved design. As used in these regulations, the term includes

“Construction quality control” or **“CQC”**, a planned system of inspections that is used to directly monitor and control the quality of a construction project.

“Containment” (SWRCB) means the use of waste management unit characteristics or installed systems and structures to prevent or restrict the release of waste constituents, including waste constituents mobilized as a component of leachate or of landfill gas.

“Containment feature” (SWRCB) means any feature, whether natural or artificial, used to contain waste constituents, including waste constituents mobilized as a component of leachate or of landfill gas.

“Containment structure” (SWRCB) means an artificial feature designed and installed to contain waste constituents, including waste constituents mobilized as a component of leachate or of landfill gas.

“Contaminated materials” (SWRCB) means materials that contain waste constituents or leachate.

“Control chart” (SWRCB) means a graphical method for evaluating whether a process is or is not in a state of statistical control.

“Coverage” (SWRCB), when applied to financial assurance, means the amount of funds the discharger must make available for a known eventuality (e.g., closure) or potential eventuality (e.g., corrective action).

“Cover Material” (CIWMB) means soils/earthen materials or alternative materials used in covering compacted solid wastes in a disposal site. Cover material may serve as daily, intermediate or final cover. **“Alternative Daily Cover”** (CIWMB) means cover material other than at least six inches of earthen material, placed on the surface of the active face at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging. **“Daily Cover Material”** (CIWMB) includes that cover material placed on the entire surface of the active face at least at the end of each operating day in order to control vectors, fire, odors, blowing litter and scavenging. **“Final Cover Material”** (CIWMB) means cover material that represents the permanently exposed final surface of a fill. **“Intermediate Cover Material”** (CIWMB) means cover material placed on all fill surfaces where additional cells are not to be constructed for 180 days or more to control vectors, fires, odors, blowing litter, scavenging, and drainage. Intermediate cover does not include final cover as defined in this section.

“CQA” — see “construction quality assurance”

“**CQC**” — refer to “construction quality assurance”

“**Critical Slope**” (SWRCB) means a potential slip surface or slope on a site that has the lowest factor of safety.

“**Cross contamination**” (SWRCB) means a condition created when a drill hole, boring, or improperly constructed well forms a pathway for fluid movement between a saturated zone which contains pollutants and a formerly separated saturated zone containing uncontaminated ground water.

“**Cutoff wall**” (SWRCB) means a subsurface barrier to lateral fluid movement which extends from in place natural geologic materials (which have the required hydraulic conductivity) to ground surface.

“**Day**” (CIWMB) means calendar day unless otherwise specified.

“**Dead Animals**” (CIWMB) include those animals whose carcasses or parts thereof require disposal.

“**Decomposable waste**” (SWRCB) means waste which, under suitable natural conditions, can be transformed through biological and chemical processes into compounds which do not impair the quality of waters of the state. Nevertheless, incomplete decomposition may result in some water quality degradation (*e.g., hardness, taste, odor, etc.*).

“**Decomposition Gases**” (CIWMB) include gases produced by chemical or microbial activity during the decomposition of solid waste.

“**Dedicated**” (SWRCB), when applied to a waste management unit (Unit), means the Unit is used exclusively for discharges of particular wastes.

“**Dendritic**” (SWRCB) when applied to a waste management unit’s subdrain system, means that this system is arranged in a branching pattern.

“**Designated waste**” (SWRCB) has the same meaning as under California Water Code §13173.

“**Dewatered sludge**” (SWRCB) means residual semi solid waste from which free liquid has been evaporated or otherwise removed.

“**Discharger**” (SWRCB) means any person who discharges waste which could affect the quality of waters of the state, and includes any person who owns a waste management unit (Unit) or who is responsible for the operation of a Unit. When referring to dischargers of hazardous waste, the terms "discharge" and "waste" in this definition have the same meaning as they would have under the definitions for these terms provided in section 66260.10 of Chapter 11 of Division 4.5 of Title 22, CCR, effective July 1, 1991.

“**Discrete unit**” (CIWMB) means any portion of the disposal area that can be individually described.

“**Disposal Area**” (CIWMB) [CIWMB usage] means that portion of a disposal site which has received or is receiving solid wastes.

“**Dump**” (CIWMB) means a disposal site which has waste exposed to the elements, vectors and scavengers.

“**Dynamic Conditions**” (CIWMB) means under transitory loading conditions, such as during an earthquake.

“**EA**” (CIWMB) means enforcement agency as defined in PRC §40130.

“**Earthquake Magnitude**” (CIWMB) means the Richter scale of earthquake magnitude used to express the total energy of an earthquake.

“Electrical conductivity” (SWRCB) means the relative ability of water to conduct electrical current. It depends on the ion concentration of, and can be used to approximate the total filterable residue (total dissolved solids) in, the water.

“Environmental Control System” (CIWMB) means a system to prevent the release of waste constituents from the containment structures of sites. Environmental control system for the purpose of this definition does not include systems which primary function is to protect water quality.

“Excess exposure” (SWRCB) means that, for an organism exposed to a release from a waste management unit, the combined effect of all hazardous constituents in the organism's environment is such that the organism will suffer some measurable adverse effect on health or reproductive success, which effect is partly or wholly attributable to the release.

“Existing” (SWRCB), when describing a waste management unit (*e.g.*, “*existing surface impoundment*”, or “*existing Unit*”), means that the waste management unit in question was operating, or had received all permits necessary for construction and operation, on or before November 27, 1984, pursuant to §20080(d).

“Existing Footprint” (SWRCB) (as capitalized) means the area of land, at an MSW landfill, that is covered by waste as of the date that landfill became subject to the federal regulations of 40 CFR Part 258, pursuant to §258.1 of that part, as published in the Federal Register of October 1, 1993 (Volume 58, No. 189, pages 51546 and 51547).
[Note: see also definitions for “Federal Deadline” and “MSW landfill”.]

“Existing MSWLF unit” (CIWMB) means any municipal solid waste landfill unit that is receiving solid waste as of the appropriate dates specified in Section 20060. Waste placement in existing units must be consistent with past operating practices or modified practices to ensure good management.

“External hydrogeologic forces” (SWRCB) means seasonal and other fluctuations in ground water levels, and any other hydraulic condition which could cause a change in the hydraulic stress on a containment structure.

“Facility” — see “waste management facility”

“Facility Boundary” (CIWMB) means the boundary surrounding the entire area on which solid waste facility activities occur and are permitted.

“Facility wastewater” (SWRCB) means all wastewater, from whatever source, produced at a confined animal facility.

“Factor of safety” (SWRCB) means the ratio of forces resisting slope or foundation failure over forces driving slope or foundation failure.

“Federal Deadline” (SWRCB) applies only to an MSW landfill, and means the compliance date applicable to that landfill or portion thereof pursuant to §258.1(e) of the federal MSW regulations (40CFR258), as revised in the Federal Register of October 1, 1993 (Volume 58, No. 189, pages 51546 and 51547). The term does not mean the date an MSW landfill must begin monitoring, in that all waste management units subject to these regulations have been required to monitor since the November 27, 1984 version of these regulations (see §20380 et seq.).

“Fill” (CIWMB) includes compacted solid waste and cover material.

“Flexible membrane liner (FML)” — see “geosynthetic(s)”

“Floodplain” (SWRCB) means the land area which is subject to flooding in any year from any source.

“**FML**” — see “geosynthetic(s)”

“**Foundation Failure**” (CIWMB) means the failure of a foundation, soil or rock that serves to support an imposed load, along a surface of weakness.

“**Freeboard**” (SWRCB) means the vertical distance between the lowest point along the top of a surface impoundment dike, berm, levee, or other similar feature and the surface of the liquid contained therein.

“**Free liquid**” (SWRCB) means liquid which readily separates from the solid portions of waste under ambient temperature and pressure. Free liquids are not present when a 100 milliliter representative sample of the waste can be completely retained in a standard 400 micron conical paint filter for 5 minutes without loss of any portion of the waste from the bottom of the filter (or an equivalent test approved by the Department of Toxic Substances Control).

“**Garbage**” (CIWMB) includes all kitchen and table food waste, and animal or vegetable waste that attends or results from the storage, preparation, cooking or handling of food stuffs.

“**Geologic materials**” (SWRCB) means in place naturally occurring surface and subsurface rock and soil.

“**Geologist**” (CIWMB) means a person who is engaged in professional geological work under the supervision of registered geologist or registered civil engineer, who is in responsible charge of the work, pursuant to section 7805 of the Business and Professions Code.

“**Geomembrane**” — see “geosynthetic(s)”

“**Geosynthetic(s)**” (SWRCB) (n) means flexible materials in planar form manufactured to meet specific engineering purposes. The term includes, but is not limited to:

“**geomembrane**”, an essentially impermeable membrane used as a barrier to waste solids and fluids, and synonymous with “**synthetic liner**” and “**flexible membrane liner (FML)**”; “**geocomposite liner (GCL)**,” a manufactured material using geotextiles, geogrids, geonets, and/or geomembranes in laminated or composite form; “**geotextile**” (including “**geonet**”), any permeable textile used with foundation, soil, rock, earth, or any other geotechnical engineering-related material as an integral part of a constructed project, structure, or system.

“**Ground acceleration**” (SWRCB) means acceleration of earth particles caused by an earthquake.

“**Ground rupture**” (SWRCB) means disruption of the ground surface due to natural or man made forces (e.g., faulting, landslides, subsidence).

“**Ground water**” (SWRCB) for the purpose of the SWRCB-promulgated requirements of this subtitle, means water below the land surface that is at or above atmospheric pressure.

“**Grout curtain**” (SWRCB) means a subsurface barrier to fluid movement, installed by injecting grout mixtures (such as cement, silicates, synthetic resins, etc.) to fill and seal fractures in rock.

“**Hazardous constituent**” (SWRCB) means a constituent identified in Appendix VIII to Chapter 11 of Division 4.5 of Title 22, CCR, or an element, chemical compound, or mixture of compounds which is a component of a waste or leachate and which has a physical or chemical property that causes the waste or leachate to be identified as a hazardous waste by the California Department of Toxic Substances Control.

“Hazardous waste” (SWRCB) means any waste which, under Article 1, Chapter 11, Division 4.5 (§66261.3 et seq.) of Title 22 of this code, is required to be managed according to Division 4.5 of Title 22 of this code.

“Head” or **“hydraulic head”** (SWRCB) means the pressure exerted by fluid on a given area. It is caused by the height of the fluid surface above the area.

“Holding facilities” (CIWMB) means sedimentation basins/ponds designed to control suspended solids entrained in surface run-off, prior to discharge.

“Holocene fault” (SWRCB) means a fault which is or has been active during the last 11,000 years.

“Household waste” (CIWMB) means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day use recreation areas).

“Hydraulic conductivity” (SWRCB) means the ability of natural and artificial materials to transmit fluid. For water, including aqueous solutions, the term is expressed as a measure of the rate of flow (e.g., cubic centimeters per second) one can expect through a unit-area (e.g., one square centimeter) cross section of the material when the hydraulic gradient is unity (e.g., one centimeter of head loss per centimeter of travel through the material). The resulting numerical value is expressed in velocity units (e.g., centimeters per second).

“Illegal Site” (CIWMB) means a disposal site that is not permitted and not exempt from obtaining a permit and is not closed or excluded from the requirement to obtain a SWFP.

“Inactive” (SWRCB) means a temporary status of a waste management unit (Unit), following the initial receipt of waste, in which the Unit is no longer receiving waste.

“Inactive mining waste management unit” (SWRCB) means any area containing mining wastes which is located at a present or former mining or milling site, and where all mining operations and discharges of mining waste ended and have not been resumed for 5 years, or more.

“Inactive Site” (CIWMB) means a site that is temporarily idle for a specific period due to known circumstances and not part of the normal operation pattern contained in the solid waste facility permit.

“Incinerator” (CIWMB) includes any equipment used for the volume reduction or destruction of combustible wastes by burning, from which the exhaust gases pass through a flue.

“Incinerator Residue” (CIWMB) includes the solid materials remaining after reduction in an incinerator.

“Independent sample” (SWRCB) means an individual sample of a monitored medium, obtained from a given Monitoring Point, that:

- (1) does not contain a parcel of the medium that has been previously sampled at that Monitoring Point sufficient to cause a measurable effect in the analytical results; and
- (2) has not been otherwise affected differently than any other individual sample or group of samples with which it will be compared.

In applying No. 1, above, to ground water monitoring, the parcel of water of interest is the parcel of water that was in the well bore at the time of any previous sampling event.

“Indicator parameters” (SWRCB) means measurable physical or chemical characteristics of water or soil pore moisture which are used to detect the presence of waste constituents in water or soil pore moisture, or the effects of waste constituents on waters of the state.

“Industrial Wastes” (CIWMB) include all types of solid wastes and semi solid wastes which result from industrial processes and manufacturing operations.

“Inert waste” (SWRCB) means the same as under §20230(a).

“Interim cover” (SWRCB) means the same as under §20705(a).

“Intermediate cover” (SWRCB), when used in an SWRCB-promulgated requirement applicable to a waste pile waste management unit, has a meaning identical to the CIWMB’s definition of the term as it applies to landfills (*under the definition for “cover material” in this section*).

“Iso-settlement map” (SWRCB) means a contour map showing lines of equal settlement of a landfill over a period of time.

“Land application unit” (CIWMB) means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for agricultural purposes or for treatment and disposal.

“Landfill” (SWRCB) means a waste management unit at which waste is discharged in or on land for disposal. It does not include surface impoundment, waste pile, land treatment unit, injection well, or soil amendments. [*Note: see also the definition of “waste management unit” and §§20090(c&f).*]

“Landfill gas condensate” (SWRCB) means liquids which are removed from a gas control system at a landfill and which are produced by the condensation of landfill gas being conveyed by that system. The term ceases to apply to such liquid upon its being treated to the extent that it no longer contains any constituent of concern whose concentration exceeds the water quality objectives of ground water in the uppermost aquifer underlying the waste management unit. [*Note: see also §20200(d).*]

“Land treatment unit” (SWRCB) means a waste management unit (Unit) at which liquid and solid waste is discharged to, or incorporated into, soil for degradation, transformation, or immobilization within the treatment zone. Such Units are disposal Units if the waste will remain after closure. [*Note: see also the definition of “waste management unit” and §20090(f).*]

“Lateral expansion” (CIWMB) means a horizontal expansion beyond the disposal area boundary.

“Lateral expansion (beyond Existing Footprint)” (SWRCB) applies only to an existing MSW landfill that is subject to the federal regulations under 40 CFR 258, and means any portion of the landfill which—in map view—is contiguous with the landfill's Existing Footprint (as defined in this section) and which receives waste after the landfill's Federal Deadline (as defined in this section).

“Lateral expansion (of RWQCB-Permitted Area)” (SWRCB), for any new or existing waste management unit (Unit), means any increase in map view of the Unit's RWQCB-Permitted Area (as defined in this section)

“LCRS” — see “leachate collection and removal system”

“Leachate” (SWRCB) means any liquid formed by the drainage of liquids from waste or by the percolation or flow of liquid through waste. It includes any constituents extracted from the waste and dissolved or suspended in the fluid. The term ceases to

apply to such liquid upon its being mingled with ground water outside the Unit's liner system. The term also ceases to apply to such liquid upon its being treated to the extent that it no longer contains any constituent of concern whose concentration exceeds the water quality objectives of ground water in the uppermost aquifer underlying the waste management unit.

"Leachate collection and removal system" or **"LCRS"** (SWRCB) means that portion of a waste management unit's containment system that is designed and constructed (pursuant to §20340) to collect all leachate that reaches it, and to convey such leachate to a designated collection area to minimize the buildup of leachate head on any underlying liner. The term does not include systems that are designed to collect ground water outside the Unit's liner, if any, including ground water that has been polluted by leachate.

"Liner" (SWRCB) means a continuous layer of natural or artificial material, or a continuous membrane of flexible artificial material, or a continuous composite layer consisting of a membrane of flexible artificial material directly overlying a layer of engineered natural material, which is installed beneath or on the sides of a waste management unit (Unit), and which acts as a barrier to both vertical or lateral fluid movement.

"Liner system" (SWRCB) means the entire sequence of individual liners, composite liners, and leachate collection system(s) which prevent or minimize releases from the waste management unit.

"Liquefaction" (SWRCB) means the process resulting from seismic or other shaking whereby solid granular material takes on the flowing characteristics of a liquid.

"Liquid waste" (SWRCB) means any waste materials which are not spadable.

"Litter" (CIWMB) means all solid waste which has been improperly discarded at any location or which has migrated by wind or equipment away from the unloading area of a solid waste facility, disposal site or operation. Litter includes, but is not limited to, convenience food, beverage, and other product packages or containers constructed of steel, aluminum, glass, paper, plastic, and other natural and synthetic materials, thrown or deposited on the lands and waters of the state, but not including the properly discarded waste of the primary processing of agriculture, mining, logging, sawmilling, or manufacturing.

"Local Air District" (CIWMB) means the local Air Quality Management District (AQMD) or the local Air Pollution Control District (APCD).

"Local Government" (CIWMB) is a local public entity which is a county, city, district, or any other special political subdivision, but is not the State.

"Manure" (SWRCB) means the accumulated moist animal excrement that does not undergo decomposition or drying as would occur on open grazing land or natural habitat. This definition shall include feces and urine which may be mixed with bedding materials, spilled feed, or soil.

"Maximum credible earthquake", or **"MCE"** (SWRCB), means the maximum earthquake that appears capable of occurring under the presently known geologic framework. In determining the maximum credible earthquake, little regard is given to its probability of occurrence except that its likelihood of occurring is great enough to be of concern. The term describes an event that could be approached more frequently in one geologic environment than in another; therefore, the following factors have a bearing upon the derivation of the MCE for any given facility:

- (a) the seismic history of the vicinity and of the geologic province;
- (b) the length of the significant fault or faults which can affect the site within a radius of 62 miles (100 kilometers) of the facility boundary;
- (c) the type(s) of faults involved;
- (d) the tectonic and/or structural history; and
- (e) the tectonic and/or structural pattern or regional setting (geologic framework); nevertheless
- (f) the time factor shall not be a parameter.

“Maximum probable earthquake”, or **“MPE”** (SWRCB), means the maximum earthquake that is likely to occur during a 100 year interval. The term describes a probable occurrence, rather than an assured event that will occur at a specific time; therefore, the following factors have a bearing upon the derivation of the MPE for a given facility:

- (a) the regional seismicity, considering the known past seismic activity;
- (b) the fault or faults within a 62 mile (100 kilometer) radius from the facility boundary that may be active within the 100 years following first acceptance of waste;
- (c) the type(s) of faults considered;
- (d) the seismic recurrence factor for the area described in &(b), above, and for any faults (when known) within that area; and
- (e) the mathematic probability analysis (or statistical analysis) of seismic activity associated with the faults included in the area described under &(b), above, including a graphical plot of recurrence information.

Nevertheless, the postulated magnitude of the MPE is superseded by any more powerful seismic event that has occurred within historic time in the area described under &(b), above.

“Measurably significant” (SWRCB) means a change in the Monitoring Point data that, relative to the reference background value (or other approved reference value or distribution), is sufficient to indicate that a release has occurred, pursuant to the applicable data analysis method (including its corresponding trigger).

“Medical Waste” (CIWMB) means waste regulated pursuant to the Medical Waste Management Act, Part 14 (commencing with Section 117600) of Division 104 of the Health and Safety Code.

“Mining waste” (SWRCB) means all waste materials (solid, semi solid, and liquid) from the mining and processing of ores and minerals including soil, waste rock, and other forms of overburden as well as tailings, slag, and other processed mining wastes.

“Moisture holding capacity” (SWRCB) means the amount of liquid which can be held against gravity by waste materials without generating free liquid.

“Monitoring parameter” (SWRCB) means one of the set of parameters specified in the waste discharge requirements for which monitoring is conducted. Monitoring parameters include physical parameters, waste constituents, reaction products, and hazardous constituents, that provide a reliable indication of a release from a waste management unit.

“Monitoring Point” (SWRCB) (as capitalized) means a well, device, or location specified in the waste discharge requirements at which monitoring is conducted and at which the water quality protection standard, under §20390, applies.

“MSW landfill” or **“municipal solid waste landfill unit”** (SWRCB) means any landfill that is subject to the federal regulations of 40CFR258, including any portion of a

disposal site that is subject to those regulations. The term includes any landfill, other than a Class I landfill, that received municipal solid waste (**MSW**) at any time and that has received any solid waste since October 9, 1991; therefore, the term does not include any landfill that stopped receiving waste prior to that date.

“Municipal solid waste,” or **“MSW”** (SWRCB) has the same meaning as under 40 CFR Part 258.

“New Unit” (SWRCB), when applied to a waste management unit (**Unit**) or portion thereof, means that the Unit (or portion thereof) began operating, or had received all permits necessary for construction and operation, after November 27, 1984, pursuant to §20080(d).

“New MSWLF unit” (CIWMB) means any municipal solid waste landfill unit that has not received waste prior to the operative date of October 9, 1993, or prior to October 9, 1997 if the MSWLF unit meets the conditions of 40 CFR 258.1(f)(1).

“Nonhazardous solid waste” (SWRCB) has the same meaning as under §20220(a).

“Nuisance” (SWRCB) has the same meaning as under Water Code §13050(m).

“Nuisance” (CIWMB) for CIWMB-promulgated sections includes anything which is injurious to human health or is indecent or offensive to the senses and interferes with the comfortable enjoyment of life or property, and affects at the same time an entire community, neighborhood, household or any considerable number of persons although the extent of annoyance or damage inflicted upon an individual may be unequal and which occurs as a result of the storage, removal, transport, processing or disposal of solid waste.

“On-site” (CIWMB) means located within the permitted boundary.

“Open burning” (CIWMB) means the combustion of solid waste without:

- (1) Control of combustion air to maintain adequate temperature for efficient combustion,
- (2) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and
- (3) Control of the emission of the combustion products.

“Operating” (CIWMB) means currently active or the period of site activity from the first receipt of waste until the final receipt of waste consistent with the normal pattern of operation in the solid waste facility permit.

“Operating” (SWRCB) — see “active life”

“Operating Area” (CIWMB) means that portion of a solid waste facility which is currently in use for the unloading, management or disposal of wastes.

“Operating life” — see “active life”

“Operator” (CIWMB) means the landowner or other person who through a lease, franchise agreement or other arrangement with the landowner becomes legally responsible to the State for including, but not limited to, the following requirements for a solid waste facility or disposal site:

- (A) obtaining a solid waste facility permit;
- (B) complying with all applicable federal, state and local requirements;
- (C) the physical operation of the facility or site; and
- (D) closing and maintaining the site during the postclosure maintenance period.

“Overpulling” (CIWMB) means excessive air intrusion into a disposal site during gas extraction to control the migration of landfill gas or to increase the production of landfill gas in an energy production system or flare.

“Partial Final Closure” (CIWMB) means the closure of discrete units of a site consistent with the approved closure and postclosure maintenance plan.

“Peak stream flow” (SWRCB) means the maximum expected flow of surface water at a waste management facility from a tributary watershed for a given recurrence interval.

“Peer-reviewed” (CIWMB) means published and independently reviewed by other experts within the same academic field.

“Perched ground water” (SWRCB) means a body of unconfined ground water separated from the zone of saturation by a portion of the unsaturated zone. Such perched water can be either permanent or ephemeral.

“Pereability” (SWRCB) means the ability of natural and artificial materials to transmit fluid.

“Physical parameter” (SWRCB) means any measurable physical characteristic of a substance including, but not limited to, temperature, electrical conductivity, pH, and specific gravity.

“Point of Compliance” (SWRCB) (as capitalized) means a vertical surface located at the hydraulically downgradient limit of a waste management unit (Unit) and that extends through the uppermost aquifer underlying the Unit.

“Post closure maintenance” (SWRCB) means all activities undertaken at a closed waste management unit to maintain the integrity of containment features and to monitor compliance with applicable performance standards.

“Post closure maintenance period” (SWRCB) means the period after closure of a waste management unit (Unit) during which the waste in the Unit could have an adverse effect on the quality of the waters of the state.

“Premises” (CIWMB) includes a tract or parcel of land with or without habitable buildings or appurtenant structures.

“Principal Gases” (CIWMB) means the organic or inorganic constituents of landfill gas, greater than one percent by volume, that typically include carbon dioxide, methane, oxygen, and nitrogen.

“Private Access” (CIWMB) means that public access and disposal are not allowed.

“Probable maximum precipitation” (SWRCB) means the estimated amount of precipitation for a given duration, drainage area, and time of year, which approaches and approximates the maximum that is physically possible within the limits of contemporary hydrometeorological knowledge and techniques. The term describes a precipitation event that has virtually no risk of being exceeded.

“Professional Land Surveyor” (CIWMB) means a land surveyor licensed by the State of California pursuant to section 8747 of the Business and Professions Code.

“Putrescible Wastes” (CIWMB) include wastes that are capable of being decomposed by micro organisms with sufficient rapidity as to cause nuisances because of odors, gases or other offensive conditions.

“P value” (SWRCB) means the smallest significance level for which the null hypothesis would be rejected, based on the data that was actually observed.

“Rapid geologic change” (SWRCB) means alteration of the ground surface through such actions as landslides, subsidence, liquefaction, and faulting.

“R Chart (range chart)” (SWRCB) means a control chart for evaluating the variability within a process in terms of the subgroup range R.

“Reconstruction” (SWRCB) means modification to an existing waste management unit (Unit) which entails costs amounting to 50 percent or more of the initial cost of the Unit.

“Refuse” (CIWMB) includes garbage and rubbish.

“Regional Water Quality Control Board” — see “RWQCB”

“Registered Civil Engineer” (CIWMB) means a civil engineer registered by the State of California, pursuant to section 6762 of the Business and Professions Code.

“Registered Geologist” (CIWMB) means a geologist registered by the State of California, pursuant to section 7842 of the Business and Professions Code.

“Regulated Hazardous Waste” (CIWMB) means a hazardous waste, as defined in §66260.10 of Division 4.5 of Title 22 of this code.

“Relative compaction” (SWRCB) means the degree of compaction achieved, as a percentage of the laboratory compaction, in accordance with accepted civil engineering practices.

“Removal” (CIWMB) means the act of taking solid wastes from the place of waste generation either by an approved collection agent or by a person in control of the premises.

“Removal Frequency” (CIWMB) means frequency of removal of solid wastes from the place of waste generation either by an approved collection agency or by the owner of the waste, or frequency of removal of recyclables at facilities which separate recyclables from the waste stream.

“Rubbish” (CIWMB) includes non putrescible solid wastes such as ashes, paper, cardboard, tin cans, wood, glass, bedding, crockery, plastics, rubber by products or litter.

“Run-off” (SWRCB) means any precipitation, leachate, or other liquid that drains from any part of a waste management unit (Unit).

“Run-on” (SWRCB) means any precipitation or other liquid that drains onto any part of a waste management unit.

“RWQCB” or “Regional Water Quality Control Board” (**RWQCB**) has the same meaning as does the latter term, as described under Division 7 of the California Water Code.

“RWQCB-Permitted Area” (SWRCB) (as capitalized) means the portion of land designated in WDRs for the discharge of waste at a waste management unit.

“Salvaging” (CIWMB) means the controlled removal of waste material for utilization.

“Saturated zone” (SWRCB) means an underground zone in which all openings in and between natural geologic materials are filled with water.

“Scavenging” (CIWMB) means the uncontrolled and/or unauthorized removal of solid waste materials, or recyclable material at a solid waste facility.

“Semi solid waste” (SWRCB) means waste containing less than 50 percent solids.

“Sensitive biological receptor of concern” (SWRCB) means a member of any species of organism whose members are likely to be exposed to a release from a waste management unit and experience some measurable adverse effect as a result of that exposure.

“Septic Tank Pumpings” (CIWMB) include sludge and wastewater removed from septic tanks.

“Shredding” (CIWMB) includes a process of reducing the particle size of solid wastes through use of grinding, shredding, milling or rasping machines. Shredding for the purposes of this Division does not apply to shredding of waste tires.

“Site Specific” (CIWMB) means specific to the local site.

“Slope Failure” (SWRCB) means the downward and outward movement of ground slopes (e.g., natural rock, soils, artificial fills, or continuations of these materials).

“Sludge” (SWRCB) means residual solids and semi solids from the treatment of water, wastewater, and other liquids. It does not include liquid effluent discharged from such treatment processes.

“Soil Engineer” (CIWMB) is synonymous with geotechnical engineer; means a registered civil engineer that is qualified to use the title of "soil engineer," pursuant to California Code of Regulations, Title 16, section 426.50.

“Soil pore liquid” (SWRCB) means the liquid contained in openings between particles of soil in the unsaturated zone.

“Solid Waste Management” (CIWMB) includes a planned program for effectively controlling the generation, storage, collection, transportation, processing and reuse, conversion or disposal of solid wastes in a safe, sanitary, aesthetically acceptable, environmentally sound and economical manner. It includes all administrative, financial, environmental, legal and planning functions as well as the operational aspects of solid waste handling, disposal and resource recovery systems necessary to achieve established objectives.

“Sorbent” (SWRCB) means a substance which takes up and holds a liquid either by absorption or adsorption.

“Special Waste” (CIWMB) means "special waste" as defined in Title 22.

“State Minimum Standards” (CIWMB) means the following sections of this Subdivision for the purposes of implementing Public Resources Code Section 44104: 20510 to 20701, 20710 to 20937, 21100 to 21200, 21430 and 21600.

“State Water Resources Control Board” — see “SWRCB”

“Static Conditions” (SWRCB) means under conditions of no external motions or forces, such as those of earthquakes.

“Statistically significant” (SWRCB) means a statistical test has a p value that is small enough for the null hypothesis to be rejected.

“Storage” (SWRCB) means the holding of waste or recyclable materials for a temporary period, at the end of which the materials either is treated or is discharged elsewhere.

“Store” (CIWMB) means stockpile, accumulate for later use or discard. *[Note: this standard does not apply to waste tires.]*

“Storm” (SWRCB) means the maximum precipitation for a given duration that is expected during the given recurrence interval *[e.g., a 24-hour (duration) 100 year (recurrence interval) storm]*.

“Surface impoundment” (SWRCB) means a waste management unit which is a natural topographic depression, excavation, or diked area, which is designed to contain liquid wastes or wastes containing free liquids, and which is not an injection well.

“SWRCB” (SWRCB) means the State Water Resources Control Board, as described under Division 7 of the Water Code.

“Synthetic liner” — see “geosynthetic(s)”

“Tailings pond” (SWRCB) means an excavated or diked area which is intended to contain liquid and solid wastes from mining and milling operations.

“Trace Gases” (CIWMB) means all other organic or inorganic compounds or elements, measured at less than one percent by volume, found together with the principal gases in landfill gas, and may include vinyl chloride, benzene, hydrogen sulfide, carbon monoxide, hydrogen, mercury, etc.

“Transmissivity” (SWRCB) means the rate at which water of the prevailing kinematic viscosity is transmitted through a unit width of the aquifer under a unit hydraulic gradient.

“Treatment” (SWRCB) means any method, technique, or process designed to change the physical, chemical, or biological characteristics of waste so as to render it less harmful to the quality of the waters of the state, safer to handle, or easier to contain or manage. The term includes use of waste as a fuel, nutrient, or soil amendment.

“Treatment zone” (SWRCB) means a soil area of the unsaturated zone of a land treatment unit within which constituents of concern are degraded, transformed, or immobilized.

“Underlying ground water” (SWRCB), for the purposes of waste management unit siting criteria, includes water which rises above the zone of saturation due to capillary forces.

“Unit” — see “waste management unit”

“Unsaturated zone” (SWRCB) means the zone between the ground surface and the regional water table or, in cases where the uppermost aquifer is confined, the zone between the ground surface and the top of the saturated portion of the aquifer’s confining layer.

“Unstable Areas” (CIWMB) means locations susceptible to natural or human induced events or forces which are capable of rupturing the site containment structure.

“Uppermost aquifer” (SWRCB) means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer.

“Vector” (CIWMB) includes any insect or other arthropod, rodent, or other animal capable of transmitting the causative agents of human disease, or disrupting the normal enjoyment of life by adversely affecting the public health and well being.

“Waste constituent” (SWRCB) means a constituent that is reasonably expected to be in or derived from waste contained in a waste management unit.

“Waste management facility” or **“facility”** (SWRCB) means the entire parcel of property at which waste discharge operations are conducted. Such a facility may include one or more waste management units.

“Waste management unit” or **“Unit”** (SWRCB) (the latter capitalized or in quotes at the beginning of a sentence) means an area of land, or a portion of a waste management facility, at which waste is discharged. The term includes containment features and ancillary features for precipitation and ainage control and for monitoring.

“Waste pile” (SWRCB) means a waste management unit (Unit) at which only noncontainerized, bulk, dry solid waste is discharged and piled for treatment or storage on an engineered liner system that prevents the waste from contacting the underlying land surface. The term does not include a Unit of similar construction which is used for waste disposal (such a Unit would be a landfill).

“Water quality impairment” (SWRCB) means degradation of the existing quality of a body of surface or ground water resulting from a release of waste constituents, waste-derived hazardous constituents, or reaction products, including but not limited to any incomplete decomposition product which could cause nuisance by odor.

“Water Standard” (SWRCB) (as capitalized) means the water quality protection standard under §20390.

“WDRs” (SWRCB) means waste discharge requirements.

“X Bar chart” (SWRCB) means a control chart for evaluating the process level or subgroup differences in terms of the subgroup average.

“Zone of saturation” (SWRCB) means the subsurface zone which extends downward from the base of the unsaturated zone in which the interstices are filled with water under pressure that is equal to or greater than atmospheric pressure. Although the zone can contain gas filled interstices (in which the gas pressure exceeds atmospheric pressure) or interstices filled with fluids other than water, it is still considered saturated.

Authority cited: Section 1058, Water Code, Reference: Section 13172, Water Code; Section 43103, Public Resources Code.

Authority cited: Section 40502 Public Resources Code, Reference: Sections 40000, 40001, 40002, and 43103 and Title 40, CFR 258.2.

§20200. SWRCB - Applicability and Classification Criteria. (C15: §2520)

(a) **Concept**—This article contains a waste classification system which applies to solid wastes that cannot be discharged directly or indirectly to waters of the state and which therefore must be discharged to waste management units (**Units**) for treatment, storage, or disposal in accordance with the requirements of this division. Wastes which can be discharged directly or indirectly (*e.g., by percolation*) to waters of the state under effluent or concentration limits that implement applicable water quality control plans (*e.g., municipal or industrial effluent or process wastewater*) are not subject to the SWRCB-promulgated provisions of this division. This waste classification system shall provide the basis for determining which wastes may be discharged at each class of Unit. Waste classifications are based on an assessment of the potential risk of water quality degradation associated with each category of waste.

(1) The waste classifications in this article shall determine where the waste can be discharged unless the waste does not consist of or contain municipal solid waste (**MSW**) and the discharger establishes to the satisfaction of the RWQCB that a particular waste constituent or combination of constituents presents a lower risk of water quality degradation than indicated by classification according to this article.

(2) Discharges of wastes identified in §20210 or §20220 of this article shall be permitted only at Units which have been approved and classified by the RWQCB in accordance with the criteria established in Article 3 of this subchapter, and for which WDRs have been prescribed or waived pursuant to Article 4, Subchapter 3, Chapter 4 of this subdivision (§21710 et seq.). Table 2.1 (of this article) presents a summary of discharge options for each waste category.

(b) **Dedicated Units/Cells For Certain Wastes**—The following wastes shall be discharged only at dedicated Units [or dedicated landfill cells (*e.g., ash monofill cell*)] which are designed and constructed to contain such wastes:

- (1) wastes which cause corrosion or decay, or otherwise reduce or impair the integrity of containment structures;
- (2) wastes which, if mixed or commingled with other wastes can produce a violent reaction (including heat, pressure, fire or explosion), can produce toxic byproducts, or can produce any reaction product(s) which:

- (A) requires a higher level of containment;
- (B) is a restricted waste; or
- (C) impairs the integrity of containment structures.

(c) **Waste Characterization**—Dischargers shall be responsible for accurate characterization of wastes, including determinations of whether or not wastes will be compatible with containment features and other wastes at a Unit under &(b), and whether or not wastes are required to be managed as hazardous wastes under Chapter 11 of Division 4.5 of Title 22 of this code.

(d) **Management of Liquids at Landfills and Waste Piles**—The following requirements apply to discharges of liquids at Class II waste piles and at Class II and Class III landfills, except as otherwise required for MSW landfills by more-stringent state and federal requirements under SWRCB Resolution No. 93-62 (Section 2908, Title 23 of this code) (see 40CFR258.28) [*Note: see also definitions of “leachate” and “landfill gas condensate” in §20164*]:

- (1) [Reserved.];
- (2) wastes containing free liquids shall not be discharged to a Class II waste pile. Any waste that contains liquid in excess of the moisture holding capacity of the waste in the Class II landfill, or which contains liquid in excess of the moisture holding capacity as a result of waste management operations, compaction, or settlement shall only be discharged to a surface impoundment or to another Unit with containment features equivalent to a surface impoundment; and
- (3) liquids or semi solid waste (i.e., waste containing less than 50 percent solids, by weight), other than dewatered sewage or water treatment sludge as described in §20220(c), shall not be discharged to Class III landfills. Exceptions may be granted by the RWQCB if the discharger can demonstrate that such discharge will not exceed the moisture holding capacity of the landfill, either initially or as a result of waste management operations, compaction, or settlement, so long as such discharge is not otherwise prohibited by applicable state or federal requirements.

NOTE: Authority cited: Section 1058, Water Code. Reference: Section 13172, Water Code; Section 43103, Public Resources Code.

20220. SWRCB - Nonhazardous Solid Waste. (C15: §2523)

(a) **Definition**—Nonhazardous solid waste means all putrescible and nonputrescible solid, semi solid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi solid wastes and other discarded waste (whether of solid or semi solid consistency); provided that such wastes do not contain wastes which must be managed as hazardous wastes, or wastes which contain soluble pollutants in concentrations which exceed applicable water quality objectives, or could cause degradation of waters of the state (i.e., designated waste).

(b) **Units That Receive**—Except as provided in §20200(d) (for liquids), nonhazardous solid waste may be discharged at any classified landfill which is authorized to accept such waste, provided that:

- (1) the discharger shall demonstrate that codisposal of nonhazardous solid waste with other waste shall not create conditions which could impair the integrity of containment features and shall not render designated waste hazardous (*e.g., by mobilizing hazardous constituents*); and
- (2) the discharger shall ensure, to the maximum extent feasible, that the Unit receives only those wastes that are approved for being discharged at that Unit. [*Note: see also CIWMB §20870*]

(c) **Dewatered Sludge**—Dewatered sewage or water treatment sludge may be discharged at a Class III landfill under the following conditions, unless DTSC determines that the waste must be managed as hazardous waste:

- (1) the landfill is equipped with a leachate collection and removal system (**LCRS**);
- (2) the sludge contains at least 20 percent solids (by weight) if primary sludge, or at least 15 percent solids if secondary sludge, mixtures of primary and secondary sludges, or water treatment sludge; and
- (3) a minimum solids to liquid ratio of 5:1 by weight shall be maintained to ensure that the codisposal will not exceed the initial moisture holding capacity of the nonhazardous solid waste. The actual ratio required by the RWQCB shall be based on site specific conditions.

(d) **Ash**—Incinerator ash may be discharged at a Class III landfill unless DTSC determines that the waste must be managed as hazardous waste.

NOTE: Authority cited: Section 1058, Water Code. Reference: Section 13172, Water Code; Section 43103, Public Resources Code.

SWRCB - Inert Waste. (C15: §2524)

(a) **Defined**—Inert waste is that subset of solid waste that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and does not contain significant quantities of decomposable waste.

(b) **Units That Accept**—Inert wastes do not need to be discharged at classified Units.

(c) **WDRs Optional**—The RWQCB can prescribe individual or general WDRs

§20240. SWRCB - Classification and Siting Criteria. (C15: §2530)

(a) **Units and Facilities** —Waste management units (**Units**) shall be classified according to their ability to contain wastes. Containment shall be determined by geology, hydrology, topography, climatology, and other factors relating to the ability of the Unit to protect water quality. A waste management facility can consist of several Units each with a different classification. Classification of Units shall be based on the criteria contained in this article, on field inspections by RWQCB and SWRCB staffs, and on other pertinent information. Information used to classify Units shall be submitted according to the provisions of Article 4, Subchapter 3, Chapter 4 of this subdivision (§21710 et seq.). Owners or operators of classified Units shall comply with waste discharge requirements (**WDRs**) adopted by the RWQCB.

(b) **Reclassification**—Existing Units shall be reclassified according to applicable criteria in this article, provided that such Units:

- (1) comply with siting criteria for each category of existing Units in §20250 and §20260, and summarized in Table 3.1 of this article; and
- (2) are operating in compliance with §20080(d).

(c) **Five-Foot Separation** — All new landfills, waste piles, and surface impoundments shall be sited, designed, constructed, and operated to ensure that wastes will be a minimum of five feet (5 ft.) above the highest anticipated elevation of underlying ground water. Existing landfills, waste piles, and surface impoundments shall be operated to ensure that wastes will be a minimum of five feet (5 ft.) above the highest anticipated elevation of underlying ground water. For new and existing land treatment units, the base of the treatment zone shall be a minimum of five feet (5 ft.) above the highest anticipated elevation of underlying ground water and dischargers shall not be entitled to exemption under §20080(b).

(d) **Unit Foundation** — All engineered structures (including, but not limited to, containment structures) constituting any portion of a Unit shall have a foundation or base capable of providing support for the structures, and capable of withstanding hydraulic pressure gradients to prevent failure due to settlement, compression, or uplift and all effects of ground motions resulting from at least the maximum probable earthquake [for Class III Units (see §20370)] or the maximum credible earthquake [for Class II Units (see §20370)], as certified by a registered civil engineer or certified engineering geologist.

[Note: see also §21750(f)(5).]

NOTE: Authority cited: Section 1058, Water Code. Reference: Sections 13172 and 13360, Water Code; Section 43103, Public Resources Code.

20324. SWRCB - CQA Requirements. (T14: §17774)

(a) **Performance Standard** — The construction quality assurance (**CQA**) program, including all relevant aspects of construction quality control (**CQC**), shall provide evidence that materials and procedures utilized in the placement of the any containment feature at a waste management unit (**Unit**) will be tested and monitored to assure the structure is constructed in accordance with the design specifications approved by the RWQCB.

(b) **Professional Qualifications.**

- (1) The design professional who prepares the CQA plan shall be a registered civil engineer or certified engineering geologist; and
- (2) The construction quality assurance program shall be supervised by a registered civil engineer or certified engineering geologist who shall be designated the CQA officer.

(c) **Reports.**

(1) The project's CQA report shall address the construction requirements, including any vegetation procedures, set forth in the design plan for the containment system. For each specified phase of construction, this report shall include, but not be limited to:

(A) a delineation of the CQA management organization, including the chain of command of the CQA inspectors and contractors;

(B) a detailed description of the level of experience and training for the contractor, the work crew, and CQA inspectors for every major phase of construction in order to

ensure that the installation methods and procedures required in the containment system design will be properly implemented.

(C) a description of the CQA testing protocols for preconstruction, construction, and postconstruction which shall include at a minimum:

1. the frequency of inspections by the operator,
2. the sampling and field testing procedures and equipment to be utilized, and the calibration of field testing equipment,
3. the frequency of performance audits determined by the design professional and examined by the CQA officer,
4. the size, method, location and frequency of sampling, sampling procedures for laboratory testing, the soils or geotechnical laboratory to be used, the laboratory procedures to be utilized, the calibration of laboratory equipment and quality assurance and quality control of laboratory procedures,
5. the pass/fail criteria for sampling and testing methods used to achieve containment system design, and
6. a description of the corrective procedures in the event of test failure.

(d) **Documentation** — Construction quality assurance documentation requirements shall include, at the minimum: reports bearing unique identifying sheet numbers for cross referencing and document control, the date, project name, location, descriptive remarks, the data sheets, inspection activities, and signature of the designated authorities with concurrence of the CQA officer.

(1) **The documentation shall include:**

(A) **Daily Summary Reports** — daily recordkeeping, which shall include preparation of a summary report with supporting inspection data sheets, problem identification and corrective measures reports. Daily summary reports shall provide a chronological framework for identifying and recording all other reports. Inspection data sheets shall contain all observations (i.e., notes, charts, sketches, or photographs), and a record of field and/or laboratory tests. Problem identification and corrective measures reports shall include detailed descriptions of materials and/or workmanship that do not meet a specified design and shall be cross-referenced to specific inspection data sheets where the problem was identified and corrected;

(B) **Acceptance Reports** — all reports shall be assembled and summarized into Acceptance Reports in order to verify that the materials and construction processes comply with the specified design. This report shall include, at a minimum, inspection summary reports, inspection data sheets, problem identification and corrective measures reports;

(C) **Final Documentation** — at the completion of the project, the operator shall prepare a Final Documentation which contains all reports submitted concerning the placement of the containment system. This document shall provide evidence that the CQA plan was implemented as proposed and that the construction proceeded in accordance with design criteria, plans, and specifications. The discharger shall submit copies of the Final Documentation report to the RWQCB as prepared by the CQA officer.

(2) Once construction is complete, the document originals shall be stored by the discharger in a manner that will allow for easy access while still protecting them from any damage. All documentation shall be maintained throughout the postclosure maintenance period.

(e) **Laboratory Testing Requirements.** [Note: the following (ASTM) standards are available from the American Society of Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428-2929, phone: 610-832-9585.]

(1) Analysis of earthen materials shall be performed prior to their incorporation into any containment system component. Representative samples for each layer within the containment system shall be evaluated. The following minimum laboratory testing procedures shall be performed:

(A) ASTM Designation: D 1557 91 [1/91], “Laboratory Compaction Characteristics of Soil Using Modified Effort (2,700 kN-m/m³)” which is incorporated by reference;

(B) ASTM Designation: D 422 63 (Reapproved) [9/90], “Standard Method for Particle Size Analysis of Soils,” which is incorporated by reference; and

(C) ASTM Designation: D 2487 93 [11/93], “Standard Classification of Soils for Engineering Purposes,” which is incorporated by reference.

(2) In addition to the tests listed in &(e and f), the following minimum laboratory tests shall be performed on low-hydraulic-conductivity layer components constructed from soil:

(A) ASTM Designation: D 4318 93 [11/93], “Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils,” which is incorporated by reference; and

(B) United States Environmental Protection Agency (USEPA) Test Method 9100 [Approved 9-86], “Triaxial-Cell Method with Back Pressure,” which is incorporated by reference.

(f) **Field Testing Requirements** — The following minimum field test procedure shall be performed for each layer in the containment system: ASTM Designation: D 2488 93 [9/93], *Standard Practice for Description and Identification of Soils (Visual Manual Procedure)*, which is incorporated by reference.

(g) **Test Fill Pad Requirements** — Before installing the compacted soil barrier layer component of a final cover system, or the compacted soil component of a liner system, the operator shall accurately establish the correlation between the design hydraulic conductivity and the density at which that conductivity is achieved. To accomplish this the operator shall:

(1) provide a representative area for a test on any compacted foundation and low-hydraulic-conductivity layers. The following minimum testing procedures shall be performed:

(A) the test pad foundation and, for final covers, the barrier layers shall be compacted with the designated equipment to determine if the specified density/moisture-content/hydraulic-conductivity relationships determined in the laboratory can be achieved in the field with the compaction equipment to be used and at the specified lift thickness;

(2) perform laboratory tests as specified in subsection (e); and

(3) perform field tests as specified in subsection (f). The discharger shall perform hydraulic conductivity tests in the test area under saturated conditions by using the standard test method ASTM Designation: D 3385 94 [9/94], “Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer,” which is incorporated by reference, for vertical hydraulic conductivity measurements. A sufficient number of tests shall be run to verify the results. Other methods that provide an accurate and precise method of measuring field hydraulic conductivity may be utilized as approved by the RWQCB.

(4) Correlations between laboratory tests and test pad results shall be established for each of the various types of fill materials and blends to be used in construction of the actual cover.

(h) **Earthen Material Requirements.**

(1) The following minimum tests shall include, but not be limited to:

- (A) Laboratory tests as specified in &(e); and
- (B) Field tests as specified in subsections (f and g).

(2) The following minimum testing frequencies shall be performed:

(A) Four (4) field density tests shall be performed for each 1,000 cubic yards of material placed, or at a minimum of four (4) tests per day;

(B) Compaction curve data (ASTM Designation: D 1557 91) graphically represented, and Atterberg limits (ASTM Designation: D 4318 93) shall be performed on the barrier layer material once a week and/or every 5,000 cubic yards of material placed;

(C) For field hydraulic conductivity tests, representative samples shall be performed on barrier layer material;

1. The frequency of testing may be increased or decreased, based on the pass/failure status of previous tests, as approved by the RWQCB.

2. Field infiltration tests shall be performed for the duration necessary to achieve steady conditions for the design hydraulic conductivity.

3. The following interpretive equation shall be used to determine the design hydraulic conductivity:

The infiltration rate (**I**) is defined as:

$$I = Q/(tA)$$

where:

Q = volume of flow;

t = interval of time corresponding to flow Q; and

A = area of the ring;

then the hydraulic conductivity (**k**) can be calculated from Darcy's law as follows:

$$k = I/i$$

where:

I = infiltration rate; and

i = hydraulic gradient.

(i) **Geosynthetic Membrane Requirements.**

(1) Performance requirements for the geosynthetic membrane include, but are not limited to, the following:

(A) a need to limit infiltration of water, to the greatest extent possible;

(B) a need to control landfill gas emissions;

(C) for final covers, mechanical compatibility with stresses caused by equipment traffic, and the result of differential settlement of the waste over time; and

(D) for final covers, durability throughout the postclosure maintenance period.

(2) **Minimum Criteria** — The minimum construction quality assurance criteria to ensure that geosynthetic membranes will meet or exceed all design specifications shall include, but not be limited to:

(A) Preconstruction quality control program:

1. inspection of the raw materials (e.g., density, melt flow index, percent carbon Black);
 2. manufacturing operations and finished product specifications (e.g., thickness, puncture resistance, multi axial stress/strain tests),
 3. fabrication operations (e.g., factory seaming);
 4. observations related to transportation, handling, and storage of the geosynthetic membrane; and
 5. inspection of foundation preparation;
- (B) **Construction activities:**
1. the geosynthetic membrane shall have thickness strength sufficient to withstand the stresses to which it shall be subjected, including shear forces, puncture from rocks or, for final covers, penetration from roots.
 2. inspection of geosynthetic membrane placement (e.g., trench corners, monitoring systems).
 3. seaming of the material; and
 4. installation of anchors and seals;
- (C) **Postconstruction Activity** — postconstruction activity includes checking for material and placement imperfections in the installed geosynthetic membrane. Imperfections that jeopardize the integrity of the membrane's function as an impermeable barrier (i.e., pin holes, rips, creases created during placement) shall be repaired to the original manufacturer's specifications and reinspected by the CQA officer; and
- (D) **Evaluation** — evaluation of the personnel and equipment to be used to install and inspect the geosynthetic membrane, and pass/fail criteria and corrective procedures for material and installation procedures shall be specified as required in &(c).
- NOTE: Authority cited: Section 1058, Water Code. Reference: Sections 13172 and 13360, Water Code; Section 43103, Public Resources Code.**

20330. SWRCB - Liners. (C15: §2542)

(a) **Performance Standard** — Liners shall be designed and constructed to contain the fluid, including landfill gas, waste, and leachate, as required by Article 3 of this subchapter (§20240 et seq., and §20310).

(b) **Clay Liners** — Clay liners for a Class II Unit shall be a minimum of 2 feet thick and shall be installed at a relative compaction of at least 90 percent. For a Class III landfill, a clay liner, if required, shall be a minimum of 1 foot thick and shall be installed at a relative compaction of at least 90 percent. For MSW landfills subject to the liner requirements in the federal MSW regulations of 40CFR258, after the Federal Deadline for liners at that Unit, the requirements of this paragraph are superseded by those of SWRCB Resolution No. 93-62 for all portions of the Unit outside the Existing Footprint.

(c) **FMLs** — Flexible membrane liners (“FMLs,” or synthetic liners) shall have a minimum thickness of 40 mils (i.e., 0.040”). For an MSW landfill subject to the liner requirements in the federal MSW regulations (40CFR258), after the Federal Deadline for liners at that Unit, the requirements of this paragraph are superseded by those of SWRCB Resolution No. 93-62 for all portions of the Unit outside the Existing Footprint.

(d) **Lined Area** — Liners shall be installed to cover all natural geologic materials (at the Unit) that are likely to be in contact with waste (including landfill gas or leachate).

(e) **S.I. With Replaceable Liner** — A Class II surface impoundment may have a single clay liner with a hydraulic conductivity of 1×10^{-6} cm/sec (i.e., 1 foot/year) or less if the liner is removed or replaced before the last 25 percent (minimum 1 foot thickness) of the liner is penetrated by fluid, including waste or leachate. The method used to determine seepage velocity shall be included with the calculations of liner penetration.

NOTE: Authority cited: Section 1058, Water Code; Reference: Sections 13172 and 13360, Water Code; Section 43103, Public Resources Code.

20340. SWRCB - Leachate Collection and Removal Systems (LCRS). [C15: §2543 // T14: §17781(b)(2) & (d)(1)]

(a) **Basic LCRS Design** — Leachate collection and removal systems (**LCRS**) are required for Class II landfills and surface impoundments, and for Class III landfills which have a liner or which accept sewage or water treatment sludge. The LCRS shall be installed directly above underlying containment features for landfills and waste piles, and installed between the liners for surface impoundments. LCRS requirements are summarized on Table 4.1. Class II landfills and waste piles which contain only dry wastes (not including nonhazardous solid waste and decomposable waste) may be allowed to operate without an LCRS if the discharger demonstrates, based on climatic and hydrogeologic conditions, that leachate will not be formed in, or migrate from, the Unit; nevertheless, for a Class II or Class III MSW landfill, after the Federal Deadline for installing liners at that Unit, the LCRS requirements of SWRCB Resolution No. 93-62 apply to all portions outside of the Unit's Existing Footprint.

(b) **Placement** — Except as otherwise provided in &(e or f), where an LCRS is used, it shall be installed immediately above the liner (except in the case of a surface impoundment), and between the inner and outer liner of a double liner system, and shall be designed, constructed, maintained, and operated to collect and remove twice the maximum anticipated daily volume of leachate from the Unit.

(c) **Head Buildup** — The RWQCB shall specify design and operating conditions in WDRs to ensure that there is no buildup of hydraulic head on the liner. The depth of fluid in the collection sump shall be kept at the minimum needed to ensure efficient pump operation.

(d) **Clogging** — LCRSs shall be designed and operated to function without clogging through the scheduled closure of the Unit and during the post closure maintenance period. The systems shall be tested at least annually to demonstrate proper operation. The results of the tests shall be compared with earlier tests made under comparable conditions.

(e) **Standard LCRS** — LCRSs shall consist of a permeable subdrain layer which covers the bottom of the Unit and extends as far up the sides as possible, (i.e., blanket type) except as provided in &(f). The LCRS shall be of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the Unit.

(f) **Alternative LCRS** — Except as otherwise required for MSW landfills, under SWRCB Resolution No. 93-62, if a Class III landfill is required to have an artificial liner and receives only permeable waste that allows free drainage of percolating fluid, the RWQCB can allow the use of a dendritic LCRS which underlies less than 100 percent of the waste; in this type of LCRS system, only wastes which have an hydraulic conductivity which approximates that of subdrain material, and which will remain

permeable throughout the active life and post closure maintenance period of the landfill, shall be placed adjacent to the liner. Furthermore, to prevent ponding, when using this type of LCRS, all portions of the liner not overlain by a portion of the subdrain system shall be sloped towards the subdrain so that ponding is minimized and leachate is removed as quickly as possible from the base of the landfill.

(g) **Leachate Handling** — Except as otherwise provided under SWRCB Resolution No. 93-62 (for MSW landfills subject to 40CFR258.28), collected leachate shall be returned to the Unit(s) from which it came or discharged in another manner approved by the RWQCB. Collected leachate can be discharged to a different Unit only if:

(1) the receiving Unit has an LCRS, contains wastes which are similar in classification and characteristics to those in the Unit(s) from which leachate was extracted, and has at least the same classification (under Article 3 of this subchapter) as the Unit(s) from which leachate was extracted;

(2) the discharge to a different Unit is approved by the RWQCB;

(3) the discharge of leachate to a different Unit shall not exceed the moisture holding capacity of the receiving unit, and shall comply with §20200(d).

(h) **Leachate Production Rate** — After July 18, 1997, for a landfill equipped with an LCRS, the discharger shall note, as a part of each regularly scheduled monitoring report [under Article 1, Subchapter 3, Chapter 3 of this division (§20380 et seq.)], the total volume of leachate collected each month since the previous monitoring report.

NOTE: Authority cited: Section 1058, Water Code; Reference: Sections 13172 and 13360, Water Code; Section 43103, Public Resources Code.

20700. CIWMB - Intermediate Cover. (T14:§17684)

(a) Compacted earthen material at least twelve (12) inches shall be placed on all surfaces of the fill where no additional solid waste will be deposited within 180 days to control vectors, fires, odors, blowing litter, and scavenging.

(b) Alternative materials of alternative thickness (other than at least twelve inches of earthen material) for intermediate cover may be approved by the EA with concurrence by the CIWMB, if the owner or operator demonstrates that the alternative material and thickness control vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.

(c) For waste classification, composition, and liquid percolation requirements of intermediate cover and alternative intermediate cover, refer to the SWRCB requirements set forth in §20705 of this article.

(d) Proposed use of alternative intermediate cover shall be subject to site specific demonstration to establish suitability as intermediate cover. Demonstration projects shall be approved by the EA with concurrence by the CIWMB.

NOTE: Authority Cited: Section 40502, 41781.3, Public Resources Code. Reference: Sections 40508, 43020, 43021 and 43103, Public Resources Code; and Code of Federal Regulations Section 258.21.

§20701. CIWMB - Slope Stability of Daily and Intermediate Cover. (T14:§17678) - [Reserved]

Note: Authority cited: Section 40502 Public Resources Code. Reference: Sections 43020, 43021 and 43103, Public Resources Code.

20750. CIWMB - Site Maintenance. (T14:§17695,17696)

The operator shall implement a preventative maintenance program to monitor and promptly repair or correct deteriorated or defective conditions with respect to requirements of the CIWMB standards, and conditions established by the EA. All other aspects of the disposal site shall be kept in a state of reasonable repair.

Note: Authority cited: Section 40502 Public Resources Code. Reference: Sections 43020, 43021 and 43103

20800. CIWMB - Dust Control. (T14:§17706)

The operator shall take adequate measures to minimize the creation of dust and prevent safety hazards due to obscured visibility.

Note: Authority cited: Section 40502 Public Resources Code. Reference: Sections 43020, 43021 and 43103, Public Resources Code.

20870. CIWMB - Hazardous Wastes. (T14:§17742,17258.20)

(a) Owners or operators of all MSWLF units must implement a program at the facility for detecting and preventing the disposal of regulated hazardous wastes as defined in 40 CFR Part 261 and polychlorinated biphenyls (**PCB**) wastes as defined in 40 CFR Part 761. This program must include, at a minimum:

- (1) Random inspections of incoming loads unless the owner or operator takes other steps to ensure that incoming loads do not contain regulated hazardous wastes or PCB wastes;
- (2) Records of any inspections;
- (3) Training of facility personnel to recognize regulated hazardous wastes and PCB wastes; and
- (4) Notification of the EA, the Director of the California Department of Toxic Substances Control (**DTSC**) or its delegated agent, and the Regional Water Quality Control Board (**RWQCB**), if a regulated hazardous waste or PCB waste is discovered at the facility.

(b) A site shall not accept hazardous wastes unless the site has been approved for the particular waste involved.

(c) At sites where hazardous materials are processed, precautions must be taken to eliminate or control dusts, fumes, mists, vapors or gases that may be produced in quantities and under conditions which may have harmful effects on site personnel, the general public or animals.

Note: Authority cited: Section 40502 Public Resources Code. Reference: Sections 40508, 43020, 43021 and 43103, Public Resources Code; Sections 25249.5 through 25249.13, Health and Safety Code; and Title 40, Code of Federal Regulations, Section 258.20.

20950. SWRCB - General Closure and Post-Closure Maintenance Standards Applicable to Waste Management Units (Units) for Solid Waste. (C15: §2580)

[Note: For landfills, see also §21790 et seq.]

(a) **General.**

- (1) **Applicability** — Dischargers who are implementing final closure of a new or existing classified solid waste management unit (Unit) or are implementing complete final closure of a portion of a solid waste landfill [incremental closure under

§21090(b)(1)(D)] shall comply with the provisions of this article. The discharger shall carry out both mandatory closure (under §22190) and normal closure (e.g., at the end of the active life of the Unit) in accordance with a closure and post-closure plan (under §21769) which the RWQCB finds meets all applicable requirements that section and of this Subchapter, including but not limited to applicable performance standards under &(a)(2). For the purposes of the RWQCB, the final closure plan the discharger submits under this section constitutes an amendment to the report of waste discharge (under §21750). If a portion of a Unit was completely closed in accordance with an approved closure plan by November 27, 1984, the cover over the closed portion does not need to be modified to conform to the SWRCB's additional closure requirements in these regulations, unless monitoring data indicate impairment of beneficial uses of ground water. Classified Units shall be closed according to an approved closure and post closure maintenance plan which provides for continued compliance with the applicable SWRCB-promulgated standards for waste containment and precipitation and drainage controls in Article 4, Subchapter 2, Chapter 3 of this subdivision (§20310 et seq.), and the monitoring program requirements in Article 5, Subchapter 2, Chapter 3 of this subdivision (§20380 et seq.), throughout the closure period and the post closure maintenance period. Relative to the applicable SWRCB-promulgated requirements of this title, the post closure maintenance period shall extend as long as the wastes pose a threat to water quality; for Units concurrently regulated by the RWQCB and by other state agencies (including the agents of such agencies), the RWQCB's finding that the waste in the Unit no longer poses a threat to water quality shall release the discharger only from the need to comply with the SWRCB-promulgated portions of this title, for that Unit. For land treatment facilities, relative only to the applicable SWRCB-promulgated requirements of this title, the post-closure maintenance period shall extend until treatment is complete.

(2) **Performance Standards** — The performance standards applicable to closure of a Unit and, for Units that are not clean-closed, to post-closure maintenance at the Unit are as follows:

(A) **Unit Closed as a Landfill** — for landfills that are not clean-closed and for waste piles and surface impoundments that are closed as a landfill:

1. **Closure** — for landfills and for waste piles and surface impoundments closed as landfills, the goal of closure, including but not limited to the installation of a final cover, is to minimize the infiltration of water into the waste, thereby minimizing the production of leachate and gas. For such Units, after closure, the final cover constitutes the Unit's principal waste containment feature; and

2. **Post-Closure Maintenance** — the goal of post-closure maintenance at such Units is to assure that the Unit continues to comply with the performance standard of &(a)(2)(A)1. until such time as the waste in the Unit no longer constitutes a potential threat to water quality;

(B) **Unit Clean-Closed** — for Units that are clean-closed, the goal of closure is to physically remove all waste and contaminated materials from the Unit and from its underlying and surrounding environs, such that the waste in the Unit no longer poses a threat to water quality. Successful completion of clean-closure eliminates the need for any post-closure maintenance period and removes the Unit from being subject to the SWRCB-promulgated requirements of this subdivision; and

(C) **LTUs** — for land treatment units (**LTUs**):

1. **Closure** — the goal of closure is to initiate the post-closure maintenance period;
 2. **Post-Closure Maintenance** — the goal of post-closure maintenance is to continue Unit operations, without discharging additional waste to the Unit, in a manner which maximizes the degradation rate of the waste remaining within the treatment zone.

(b) **Closure Supervision** — Closure shall be under the direct supervision of a registered civil engineer or a certified engineering geologist.

(c) **Unit Type** — Class II Units and Class III landfills shall be closed in accordance with one of the following options:

- (1) **landfill**: pursuant to §21090;
- (2) **surface impoundment**: pursuant to §21400;
- (3) **waste pile**: pursuant to §21410; or
- (4) **land treatment**: pursuant to §21420.

(d) **Surveying Monuments** — Closed Units shall be provided with at least two permanent monuments installed by a licensed land surveyor or a registered civil engineer, from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the post closure maintenance period.

(e) **Vegetation** — For landfills and for waste piles and surface impoundments that are closed as landfills, all vegetation for the closed Unit's vegetative cover layer shall meet the requirements of §21090(a)(3)(A)1. [in cases where the Unit does not utilize the mechanically erosion resistant layer of §21090(a)(3)(A)2.].

(f) **Closure/Post-Closure Financial Assurance** — The RWQCB shall require the discharger to establish an irrevocable fund (or to provide other means) for closure and post-closure maintenance (see Articles 1 & 2 of Chapter 6 of this subdivision) to ensure closure and post closure maintenance of each classified Unit in accordance with an approved plan. *[Note: corrective action financial assurance standards continue to apply throughout closure and post-closure maintenance {see §20380(b) & §22222.}]* For landfills required by the CIWMB to have financial assurance mechanisms under Chapter 6, the RWQCB shall assist the CIWMB:

- (1) by verifying the amount of coverage proposed by the discharger to meet applicable SWRCB-promulgated requirements of this subdivision *[Note: the CIWMB is responsible for the review, approval, and management of the financial assurance mechanisms for such Units]*; and
- (2) by participating in the CIWMB's periodic review of the adequacy of financial assurance mechanisms, and in any enforcement action that such review reveals, as necessary.

NOTE: Authority cited: Section 1058, Water Code. Reference: Section 13172, Water Code; Section 43103, Public Resources Code.

§20960. CIWMB - General Standards For Disposal Sites and Landfills. [Reserved]

21710. SWRCB - Report Of Waste Discharge (ROWD) and Other Reporting Requirements. [C15: §2590]

(a) **General** — Any person discharging or proposing to discharge solid waste to land where water quality could be affected as a result of such discharge shall submit to the

RWQCB a report of waste discharge (**ROWD**), unless the report is waived by the RWQCB; nevertheless, the RWQCB shall not waive the report for any MSW landfill subject to regulation under SWRCB Resolution No. 93-62. After July 18, 1997, any person proposing to discharge solid waste at a waste management unit (**Unit**) that is subject to regulation by both the CIWMB/EA and the RWQCB shall make all ROWD submittals (including updates to a previously submitted ROWD) in the form of a Joint Technical Document (**JTD**), as provided in §21585. After July 18, 1997, this reporting requirement also applies to the expansion of the RWQCB-Permitted Area of a new or existing Unit and to the development of new Units at an existing facility. Dischargers shall submit any applicable information required by this article to the RWQCB upon request. Dischargers shall provide information on waste characteristics, geologic and climatologic characteristics of the Unit and the surrounding region, installed features, operation plans for waste containment, precipitation and drainage controls, and closure and post closure maintenance plans as set forth in §§21740, 21750, 21760, and 21769. For non-MSW Class III landfills, the RWQCB can waive the submittal of information it deems unnecessary to rendering a decision on the issuance of appropriate WDRs.

(1) [Reserved.]

(2) **Final Closure/Post-Closure Plan** — For Class II and III Units, a Final Closure and Post Closure Maintenance Plan shall be submitted with the closure notice required by &(c)(5), unless, for landfill Units, the CIWMB requires submittal at an earlier date.

(3) **Waiving Post-Closure Maintenance** — The RWQCB can waive the post closure portion of the report if the discharger successfully completes clean-closure pursuant to §21090(f) [for landfills], §21400(b)(1) [for surface impoundments], or §21410(a)(1) [for waste piles], or if the RWQCB finds that post closure maintenance is not necessary to prevent adverse impacts on waters of the state; provided that the RWQCB shall not waive post-closure maintenance for an MSW landfill subject to SWRCB Resolution No. 93-62 unless the Unit has been clean-closed. *[Note: see also §21900 for corresponding CIWMB requirements.]*

(4) **Notification of Change** — The discharger shall notify the RWQCB of changes in information submitted under the applicable SWRCB-promulgated requirements of this division, including any material change in: the types, quantities, or concentrations of wastes discharged; site operations and features; or proposed closure procedures, including changes in cost estimates. The discharger shall notify the RWQCB a reasonable time before the changes are made or become effective. No changes shall be made without RWQCB approval following authorization for closure pursuant to the site closure notice required by &(c)(5).

(5) **Construction Quality Assurance Plan (CQA Plan).**

(A) **Submittal (new Units)** — For Units constructed (or reconstructed) after July 18, 1997, the discharger shall submit a preliminary CQA Plan as an integral or separable part of the initial ROWD/JTD under &(a). The discharger shall make such changes to the CQA Plan as may be necessary to maintain continued compliance with §§20323 and 20324 (*e.g., in the event of design changes, or as directed by the RWQCB*). For a revised CQA Plan, the discharger shall submit the revised portions of the plan at least two weeks before beginning construction of any liner system or cover system.

(B) **Submittal (existing Units)** — For existing Units that do not have a CQA Plan meeting all the foregoing requirements, the discharger shall submit such a plan, or submit

suitable modifications to an existing plan, prior to constructing, installing, or modifying any engineered feature at the Unit. In the absence of such construction, installation, or modification, the discharger shall make this submittal as part of whichever of the following documents is submitted first:

1. the final closure and post-closure plan under &(a)(2); or
2. in the event that a release is discovered, as part of the proposed corrective action program under §20425(d).

(b) **ROWD/WDR Out-Of-Date or Nonexistent** — Dischargers who own or operate a new or existing Unit which has not been classified under previous versions of these regulations, or for which the discharger has not submitted a report of waste discharge (**ROWD**) before July 18, 1997, shall notify the RWQCB of the existence of their Unit prior to July 18, 1998, and shall submit a ROWD which complies with &(a) before July 18, 1999, together with the appropriate filing fee. Dischargers who own or operate an existing Unit for which WDRs were last revised before November 27, 1984, shall submit a ROWD which complies with &(a) to the RWQCB, together with the appropriate filing fee, on request.

(c) **Notification.**

(1) **Change of Ownership** — The discharger shall notify the RWQCB in writing of any proposed change of ownership or responsibility for construction, operation, closure, or post closure maintenance of a Unit. This notification shall be given prior to the effective date of the change and shall include a statement by the new discharger that construction, operation, closure, and post closure maintenance will be in compliance with any existing WDRs and any revisions thereof. The RWQCB shall amend the existing WDRs to name the new discharger.

(2) **Response to Failure** — The discharger shall promptly notify the RWQCB of any slope failure, occurring at the Unit. The discharger shall promptly correct any failure which threatens the integrity of containment features or the Unit, after approval of the method, in accordance with a schedule established by the RWQCB.

(3) **Leachate Production Change Notification** — The discharger shall notify the RWQCB within seven days if fluid is detected in a previously dry leachate collection and removal system or unsaturated zone monitoring system, or if a progressive increase is detected in the volume of fluid in a leachate collection and removal system.

(4) **Monitoring Reports and Notifications** — The discharger shall comply with the notification (and other submittal) requirements in Article 1, Subchapter 3, Chapter 3 of this division (§20380 et seq.).

(5) **Notification of Closure.**

(A) **Landfills** — For landfills subject to the CIWMB-promulgated regulations of this division, the discharger shall notify the RWQCB that the Unit is to be closed, and shall provide such notice either at the same time as for the CIWMB, under §21110, or 180 days prior to beginning any final closure activities (for the entire Unit or portion thereof), whichever is sooner.

(B) **Other Units** — For Units not subject to the CIWMB-promulgated regulations of this division, the discharger shall notify the RWQCB of Units to be closed at least 180 days prior to beginning any final closure activities, unless the RWQCB specifies a shorter interval in the WDRs for such a Unit.

(C) **Affirmation** — The notice provided pursuant to &(c)(5)(A or B) shall include a statement that all closure activities will conform to the most recently approved closure plan and that the plan provides for site closure in compliance with all applicable federal and state regulations.

(6) **Closure Completion Notice** — The owner or operator of a Unit shall notify the RWQCB within 30 days after the completion of all closure activities for a Unit [or portion thereof, in the case of a landfill undergoing incremental closure under §21090(b)(1)(D)]. The discharger shall certify under penalty of perjury that all closure activities were performed in accordance with the most recently approved final closure plan and in accordance with all applicable regulations. The discharger shall certify that closed Units shall be maintained in accordance with an approved post closure maintenance plan unless post closure maintenance has been waived pursuant to &(a)(3).

(d) **Appropriate Professional** — Any report submitted under this section or any amendment or revision thereto which proposes a design or design change (or which notes occurrences) that might affect a Unit's containment features or monitoring systems shall be approved by a registered civil engineer or a certified engineering geologist.

NOTE: Authority cited: Section 1058, Water Code. Reference: Sections 13172, 13260 and 13267, Water Code; Section 43103, Public Resources Code.

21720. SWRCB - Waste Discharge Requirements (WDRs). (C15: §2591)

(a) **WDR Scope & Purpose** — The RWQCB shall adopt waste discharge requirements (WDRs) that implement the applicable provisions of this title.

(b) **WDR Revision** — The RWQCB shall revise WDRs as necessary to implement the provisions of this title.

(c) **Reclassification** — Unit classifications and WDRs for existing Units shall be fully reviewed in accordance with schedules established by the RWQCB. The WDRs shall be revised to incorporate reclassification and retrofitting requirements as provided in §20080(e) and §20310, and to comply with applicable monitoring and response programs required under Article 1, Subchapter 3, Chapter 3 of this division (§20380 et seq.). The RWQCB shall specify in WDRs the schedule for retrofitting of existing Units. All retrofitting shall be complete within five years from the issuance of the revised WDRs.

(d) **Local Agencies** — WDRs for new Units or for expansion of Units beyond the RWQCB-Permitted Area on July 18, 1997, shall not be effective until the RWQCB is notified that all local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved use of the site for discharges of waste to land.

(e) **Consolidation of Requirements at Multi-Unit Facilities** — At the discretion of the RWQCB, WDRs for all Units in a single facility can be combined into a single set of WDRs applicable to the facility as a whole and to each respective Unit within the facility, but only if the requirements that apply to each respective Unit are clearly identified. Likewise, the RWQCB can consolidate the requirements relating to precipitation and drainage control systems for two or more adjacent Units, provided that such consolidated requirements reflect standards for the highest classification of Unit involved. Each solid waste Unit at a facility shall have its own respective monitoring program(s) under Article 1, Subchapter 3, Chapter 3 of this division (§20380 et seq.); nevertheless, Units can share

Monitoring Points, Background Monitoring Points, sampling efforts, and reporting periods to the degree that the RWQCB concurs that such sharing does not interfere with achieving the goal of the monitoring program(s) at each respective Unit.

(f) **Records** — The discharger shall be required to maintain legible records of the volume and type of each waste discharged at each Unit and the manner and (for Units other than surface impoundments) location of discharge. Such records shall be on forms approved by the SWRCB or RWQCB and shall be maintained at the waste management facility until the beginning of the post closure maintenance period. These records shall be available for review by representatives of the SWRCB and RWQCB at any time during normal business hours. At the beginning of the post closure maintenance period, copies of these records shall be sent to the RWQCB.

NOTE: Authority cited: Section 1058, Water Code. Reference: Sections 13172 and 13263, Water Code; Section 43103, Public Resources Code.

22207. SWRCB - Closure Funding Requirements. [C15: §§2574(f&g) and 2580(f)]

The requirements of this section apply to dischargers who own or operate a Class II, or Class III waste management unit (**Unit**) or a mining waste management unit (**mining Unit**).

(a) **Unit Closure Funding** — At Class II and Class III Units for which the CIWMB does not require a closure fund, the RWQCB shall require the discharger to establish an irrevocable closure fund (or to provide other means) pursuant to the CIWMB-promulgated sections of this chapter but with the RWQCB named as beneficiary, to ensure closure of each classified Unit in accordance with an approved plan meeting all applicable SWRCB-promulgated requirements of this subdivision. For solid waste disposal sites, the RWQCB shall coordinate with the CIWMB, pursuant to §20950(f).

(b) **Mining Unit Closure Funding** — For mining Units only, the discharger shall provide for adequate funding to pay for the costs of closure as required by the mining regulations of Article 1, Subchapter 1, Chapter 7 of this division (§22470 et seq.). The discharger shall provide assurance of financial responsibility acceptable to the RWQCB. The RWQCB shall periodically review financial assurances for mining Units and shall modify the financial assurances as necessary to provide continued compliance with this section. If a lead agency acting under the authority of §2774(a) of the Public Resources Code requires assurances of financial responsibility for a mining Unit, these assurances can be used to fulfill the requirement under this paragraph, provided that:

- (1) the RWQCB approves the assurance; and
- (2) the RWQCB is named as alternate payee.

Note: Authority cited: Section 1058, Water Code. Reference: Sections 13172, 13226, 13263, and 13267, Water Code; Section 43103, Public Resources Code.

22212. SWRCB - Post-Closure Funding Requirements. [C15: §§2574(f&g) and 2580(f)]

The requirements of this section apply to dischargers who own or operate a Class II or Class III waste management unit (**Unit**) or a mining waste management unit (**mining Unit**).

(a) **Non-Mining Units** — At Class II and Class III Units for which the CIWMB does not require a closure fund, the RWQCB shall require the discharger to establish an irrevocable fund (or to provide other means) pursuant to the CIWMB-promulgated sections of this chapter but with the RWQCB named as beneficiary, to ensure post closure maintenance of each classified Unit in accordance with an approved plan meeting all applicable requirements of this subdivision. For solid waste landfills, the RWQCB shall coordinate with the CIWMB, pursuant to §20950(f).

(b) **Mining Units** — The discharger shall provide for adequate funding to pay for the costs of closure post closure maintenance at mining Units, as required by the mining regulations of Article 1, Subchapter 1, Chapter 7 of this division (§22470 et seq.). The discharger shall provide assurance of financial responsibility acceptable to the RWQCB. The RWQCB shall periodically review financial assurances for mining Units and shall modify the financial assurances as necessary to provide continued compliance with this section. If a lead agency acting under the authority of §2774(a) of the Public Resources Code requires assurances of financial responsibility for a mining Unit, these assurances can be used to fulfill the requirement under this paragraph, provided that:

(1) the RWQCB approves the assurance; and

(2) the RWQCB is named as alternate payee.

Note: Authority cited: Section 1058, Water Code. Reference: Sections 13172,13226, 13263, and 13267, Water Code; Section 43103, Public Resources Code.

§22222. SWRCB - Corrective Action Funding Requirements. [C15: §2550.0(b) and §2580(f)]

The requirements of this section apply to dischargers who own or operate a Class II or Class III waste management unit (**Unit**). This section does not apply to discharges of mining waste to mining waste management units (**mining Units**). *[Note: The requirements of this paragraph do not preclude the RWQCB (under authority other than this subdivision) from requiring financial assurance for a known or reasonably foreseeable release at a mining Unit.]* At Units for which the CIWMB does not require financial assurances for corrective action, the RWQCB shall require the discharger to establish an irrevocable fund (or to provide other means) pursuant to the CIWMB-promulgated sections of this chapter but with the RWQCB named as beneficiary, to ensure funds are available to address a known or reasonably foreseeable release from the Unit, pursuant to §20380(b). For addressing a known or reasonably foreseeable release at a solid waste landfill, the RWQCB shall coordinate with the CIWMB, pursuant to §20380(b) and in a manner consistent with §20950(f).

Note: Authority cited: Section 1058, Water Code. Reference: Sections 13172,13226, 13263, and 13267, Water Code; Section 43103, Public Resources Code.